

# Atheists, Agnostics, and Apostates

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In the scientific study of religion in general and the psychology of religion in particular, atheists and agnostics have received limited attention, while believers and converts have stood in the center of interest. More recently, however, more attention has been given to atheists and agnostics, and several researchers have recommended studying atheists and agnostics in their own right (Hood, Hill, & Spilka, 2009; Hunsberger & Altemeyer, 2006; Keysar, 2007; Kosmin & Keysar, 2007). This new interest may in part be due to indications of a considerable increase in the probability of religious nonaffiliation in the U.S.: According to one recent study, this probability has risen “from between .06 and .08 in the 1970s and 1980s to almost .16 in 2006” (Schwadel, 2010, p. 318). Although the question of who are the “nones” (cf., Pasquale, 2007) should be approached with care, these groups of unaffiliates and disaffiliates likely include a number of atheists and agnostics.

Most of the research in this area takes a static and synchronic approach, contrasting belief vs. unbelief or religiosity vs. atheism/agnosticism. We believe that a more dynamic approach is called for, one that views atheism and agnosticism as processes. From the perspective of a dynamic approach, it is also necessary to include apostasy in this discussion, because people who leave their faith are in the process of a developmental change, a migration in the religious field which may eventually lead to exiting the religious domain altogether. Therefore, the three terms in the title are interrelated and need to be studied in tandem.

For a deeper understanding of atheists, agnostics, and people who deconvert eventually to atheist and agnostic beliefs, it is imperative to know their motivations, the predictors of their stance toward religion, and the effects of their religious approach on various outcomes. There are

a number of particularly interesting questions about outcomes: Are the shifts to atheism, agnosticism and apostasy associated with an increase or a decrease in psychological well-being? How do these religious positions affect physical health? Do they lead to differences in preferences in the ways of coping with major life stressors? In this chapter, we address these questions, discuss the results from extant research, and suggest directions for future research. But we begin with a discussion of concepts and models, because some important questions have also been raised or re-opened on the theoretical level – questions that relate to the conceptualization of religion and spirituality in general.

### **Definitions and Models for Understanding Atheists, Agnostics and Apostates**

#### **The Substantive Definition**

The most widely accepted definition of atheism is substantive in nature: Atheism is characterized by the denial of the existence of God, whereas agnosticism is characterized by skepticism about, or bracketing of, the existence of God, the construction of world view and identity without any assumption that there is a God (Baggini, 2003; Mackie, 1982). Here atheism and agnosticism are understood as interrelated but nevertheless different constructs. Both signify a turn away from specific images of God, but atheism is more resolute than agnosticism, less open to a religious or spiritual sentiment and quest. From this substantive perspective, atheism and agnosticism can be understood as *beliefs* (Hood, Hill, & Spilka, 2009; Martin, 2007), although many atheists/agnostics do not see their views as “faith-based” (Saeed & Grant, 2004). Nevertheless, atheism and agnosticism are based upon (even though refusing or bracketing) a culturally dominant and specifically *theistic* image of God.

In atheism, however, there is more at work than simply substantive concepts of religion, such as theoretical, philosophical questions of whether God exists; atheism also involves hostility toward organized religion in the name of reason, freedom, and autonomy. While “popular” atheism certainly draws on the opposition against, and falsification of, theistic beliefs, it is also accompanied by vigorous claims about the irrationality and vanity of all religion and every belief in gods, spirits or transcendental entities (e.g. Dawkins, 2006; Hitchens, 2007). As Taylor (2007) maintains, modern atheism emerged as a consequence of the Enlightenment and the ethical fight for freedom in matters of religion which has gained most popularity in the 19<sup>th</sup> century.

Our understanding of atheism and agnosticism is more comprehensive and not confined to the substantive paradigm. It draws on functional and structural perspectives on religion and includes dimensions such as experience, meaning-making, ritual or participation. On the basis of this broader concept of religion, atheism and agnosticism can be understood as disbelief in, hostility toward, or ignorance of a specific established religion. From this point of view, atheism represents the hard core of an anti-religious sentiment, while agnosticism constitutes a rather mild position of religious abstinence (Hunsberger & Altemeyer, 2006).

### **The Varieties of ‘Atheisms’ and ‘Agnosticisms’, and the Dynamics of Change**

The association of “atheism” and “agnosticism” with *unbelief* is also problematic, for it is plausible only in a mono-religious environment or a culture with one dominant and unchanging religion. If, however, understandings of God vary and change, then understandings of atheism will vary and change as well. This means that there will be as many varieties of atheism as there are varieties of belief in God (Hyman, 2007). It follows that in multi-religious cultures, we must be even more specific and explicate which God is called into question, what kind of religious

experiences or rituals have become empty, and which religious establishment is opposed. And occasionally atheist or agnostic developments in regard to one religion go hand in hand with an appreciation for another religion or spirituality.

What has been said about the conceptualization of atheism and agnosticism also applies generally to the conceptualization of apostasy. To respond to some terminological uncertainty (cf. the discussion about definitions in Hood, Hill, & Spilka, 2009, p. 132f.), we suggest a broad understanding of apostasy as disidentification and eventually disaffiliation from a religious tradition. Thus, the term “apostate” is similar to “deconvert”, as Streib and colleagues (Streib & Keller, 2004; Streib, Hood, Keller, Silver & Csöff, 2009) have defined it with reference to Barbour (1994), and includes core criteria, such as the loss of religious experiences, intellectual doubt and denial, moral criticism, and disaffiliation from a religious community. From our point of view, all three concepts – atheism, agnosticism, and apostasy – are interrelated. Each construct is dynamic and includes experiential, moral, ritual, and participatory dimensions.

### **The Beliefs of the ‘Nones’**

It should be emphasized that atheism, agnosticism and apostasy must not be lumped together with the unspecified group of the unaffiliated or “nones” – who might include non-attending believers and private practitioners who still feel attached to their (former) religious traditions (Albrecht, Cornwall, & Cunningham, 1988; Fuller, 2001; Hunsberger & Altemeyer, 2006). Pasquale (2007) asked unchurched persons from the U.S. northwest about their worldviews. While most described themselves as humanists, others viewed themselves as atheistic, secular, skeptical, or scientific. Smaller groups in Pasquale’s (2007) study called themselves naturalists, agnostics, or anti-religious. All of them had very low scores in personal religiosity and spirituality, but all rated their spirituality as slightly higher than their religiosity.

Other studies in the past decade have also identified individuals who define themselves “more spiritual than religious” or “spiritual, but not religious,” including those who decline in their belief in a theistic God and those who oppose religion and disaffiliate from religious organizations (Marler & Hadaway, 2002; Hood, 2003; Streib, 2008; Zinnbauer et al., 1997). Apparently, the description of being more spiritual than religious can also be used by atheists, agnostics, or apostates, and may reflect what has been identified as “post-Christian spirituality” (cf., Houtman & Aupers, 2007) or “holistic subjective-life spirituality (cf., Heelas, Woodhead, Seel, Szerszynski, & Tusting, 2005).

To understand atheism and agnosticism, it is important to realize that the symbolization of experiences of transcendence can occur in terms of vertical or of horizontal transcendence (cf. Hood, Hill, & Spilka, 2009): Vertical transcendence involves the symbolization of a heaven above with person-like beings; in horizontal transcendence, experiences of transcendence are symbolized as experience of the holy or something of ultimate concern, but *within this world*, such as “Mother Earth” in green spirituality (Kalton, 2000). The concept of horizontal transcendence helps prevent the misunderstanding of “nones” who self-identify as non-theists, but who nevertheless experience transcendence and ultimate concern in this world – which may also be interpreted as “implicit religion” (Bailey, 2001; Schnell, 2003). There is some parallel between horizontal transcendence and what Taylor (2007) calls “immanent” transcendence. This latter construct refers to those who stand outside of organized religion, but nevertheless have a sense of spirituality, of relation to something transcendent or sacred (Fuller, 2001; Heelas et al., 2005; Hood, 2003; Marler & Hadaway, 2002; Streib, 2008; Zinnbauer et al., 1997; Zinnbauer & Pargament, 2005). On the basis of this conceptualization, it is no surprise that, among atheists

and agnostics, we find versions of spirituality or religiosity which may be primarily associated with horizontal transcendence.

## **Research on Atheists, Agnostics and Apostates**

### **Survey Results on Atheists, Agnostics and Apostates**

A number of surveys have documented changes in religious preferences in the U.S., including atheism and agnosticism. These include the studies of Roof (1999), Fuller (2001), Sherkat (2001), and the Pew “Religious Landscape Survey” (Pew Forum on Religion & Public Life, 2009). A few studies have devoted special attention to atheists and agnostics, including Hunsberger & Altemeyer (2006) and the American Religious Identification Survey (ARIS) (Kosmin & Keysar, 2009). The documentation of the past and the probability of future religious nonaffiliation and disaffiliation in the U.S. has been presented by Schwadel (2010) on the basis of the General Social Survey (GSS) data. Cross-cultural comparison of religiosity data, including atheist tendencies, can be gleaned from the recent Religion Monitor survey (Bertelsmann Foundation, 2009; Meulemann, 2009). A cross-cultural *and* longitudinal perspective can be generated from the World Value Survey which Houtman and Aupers (2007) have used to demonstrate a trend toward “post-Christian spirituality” in 14 Western countries. Special attention should also be given to the survey results of the International Social Survey Programme, Religion III (ISSP 2008). The ARIS and ISSP data are of particular interest for our theme.

**Belief in God.** The ARIS data allow for an assessment of atheistic and agnostic milieus in the U.S. (Kosmin & Keysar, 2006; Keysar, 2007; Kosmin & Keysar, 2009). Results from 2008 identify atheists and agnostics on the basis of a set of items probing beliefs about God:

2.3% agree that “there is no such thing”; 4.3% say “there is no way to know”; 5.7% are “not sure,” and 12.1% believe that “there is a higher power but no personal God”. Similar results in the U. S. emerged out of the ISSP 2008 survey: 2.8% say “I don’t believe in God”; 5.0% agree to the statement, “I don’t know whether there is a God and I don’t believe that there is a way to find out”; 10.3% agree with “I don’t believe in a personal God, but I do believe in a Higher Power of some kind”.

Of special interest for our topic are the data which yield a perspective on biographical-diachronic change and cross-cultural comparison at the same time. In the ISSP data, a set of items asked about changes in beliefs in God. Results demonstrated huge cross-cultural differences. Specifically, Germany-East appears to be the most secular region of the world with only 14.5% permanent believers in God and 65.3% who say that they don’t believe in God and never had (cf. also Froese & Pfaff, 2005; Schmidt & Wohlrab-Sahr, 2003; Zuckerman, 2007). On the other end of the spectrum, in Turkey, 96.6% say that they always believed in God. Similar to Turkey, in the U. S. 83.1% indicate that they are permanent believers in God and 4.2% say they never believed in God.

Survey findings also point to cross-cultural differences in the loss of belief in God. While only 5.4% in the U.S. report loss of believe in God, between 15% and 20% in Germany-West or other European countries indicate a similar loss of belief.

**Disaffiliation and non-affiliation.** A similar picture of cross-cultural diversity emerges from surveys on disaffiliation and non-affiliation. In the ISSP data, disaffiliation can be separated from non-affiliation by two variables, one asking for present religious affiliation and the other asking in which religion, if any, the respondent has been raised. Here again, East Germans report the highest proportion of those non-affiliated (52.1%); people from Great Britain



report the highest disaffiliation rates (31.2%). In the U. S., less than 50% report a stable religious affiliation. However, this reflects a large number of religious switchers (33.1%) rather than a large number of non-affiliates. Only 16% of people in the U. S. indicate no religious preference.

**Atheist and agnostic worldviews.** For a deeper understanding of apostates, we have to go into more detail and estimate the portions of atheists and agnostics in the disaffiliate group. Atheist and agnostic worldviews can be estimated when we include one item from the ISSP questionnaire which asks: “I don't believe in God” and another item which asks: “I don't know whether there is a God, I don't believe there is a way to find out.” On this basis, we calculate rather small portions of atheists and agnostics in the groups of non-affiliates and disaffiliates in the U. S.: only 10% to 15% of non-affiliates and disaffiliates report disbelief in God’ existence, and only 20% of non-affiliates and disaffiliates self-identify as agnostics. Interestingly, a fourth of the non-affiliates and disaffiliates in the U.S. have no doubt about God’s existence. Thus, in contrast to most European countries, non-affiliates and disaffiliates in the U.S. include smaller portions of atheists and agnostics than people who are convinced of God’s existence.

Taken together (and referring to ISSP 2008 results), survey data allow, for the U.S., some estimation of the – globally rather low – quantity of non-affiliates (4.6%) and disaffiliates (11.4%), of non-believers in God (4.2% permanent and 5.5% who lost believe in God) and of atheistic (2.9%) and agnostic (4.6%) preferences. These survey findings are, however, limited in some important respects. Most of the surveys rely on one-item measures that do not assess the broader variety of atheistic beliefs (e.g., in evolution, science, rationality, care for humanity, etc.) or distinctions between different nonreligious orientations. Furthermore, those scales which have been developed to measure atheism and agnosticism focus on what people do *not* do or believe, the extent of their religious doubts (Altemeyer, 1988; Hunsberger & Altemeyer, 2006), rejection

of religious beliefs (Greer & Francis, 1992), or spiritual disengagement (Cole, Hopkins, Tisak, Steel, & Carr, 2007). Only a few attempts have been made to assess atheistic beliefs more comprehensively, such as the Post-Critical Belief Scale (PCBS; Fontaine et al., 2003) and a scale by Gibson (2010). The major limitation of survey data, however, involves the lack of information on psychological factors that are involved in atheism, agnosticism, and apostasy. For that information, we turn to other research findings.

### **Psychological Research on Predispositions of Atheist/Agnostic Orientation and Apostasy**

**Religious socialization.** Some research has focused on religious socialization and its relation to apostasy, atheism and agnosticism. Developmentally, apostasy appears to be more common in adolescence and young adulthood than in other phases of life. This is reflected, for example, in the results of the Pew study (2009) which document that, for the 44% respondents who do not belong to their childhood faith, most changes of religious affiliation occurred in or before early adulthood. The figures are even more striking for the “secular exiters”, those who disaffiliate with no re-affiliations: 79% of the former Catholics and 85% of the former Protestants report disaffiliation under the age of 25.

Does apostasy indicate a lack of parental emphasis on religion or is it a form of rebellion against religion and a radical demand for autonomy? This is an unanswered question (for a review, see Hood, Hill, & Spilka, 2009). There is some support for the assumption that apostasy is the result of socialization processes in families where religion is of low importance (Hunsberger et al., 1993; Nelsen, 1981). On the other hand, Altemeyer and Hunsberger’s (1997; Hunsberger, 2000) comprehensive study of extreme groups of “amazing apostates” and “amazing believers” who were identified through a major questionnaire study suggests the opposite explanation. “Amazing apostates” came from highly religious backgrounds, but rejected

their family's religious beliefs and scored very low on a measure of religious orthodoxy; "amazing believers" came from families with little emphasis on religion while growing up, but turned to religion and faith as adolescents or adults. In the interviews, many "amazing apostates" confirmed that, because of their dedication to truth, they had rejected the religious teachings of their family. Despite strong pressure from their families to hold on to their religious beliefs, "they gave up their faith because they could not make themselves believe what they have been taught" (Hunsberger & Altemeyer, 2006, p. 42).

In their study of atheists in the San Francisco Bay area, Hunsberger and Altemeyer (2006) found that over 70% of the atheists say they believed in God before they found the teachings of their religion "unbelievable" and became atheists. Similarly, in the Bielefeld-based Cross-cultural Study on Deconversion (Streib et al., 2009), a typology of four types of deconverts could be identified on the basis of the analysis of narrative interviews: "pursuit of autonomy" (long-term gradual process of stepping away from the previous religious environment), "debarred from paradise" (deconversion from a religious tradition, mostly high-tension organizations, which was once chosen because it was supposed to solve all problems), "finding a new frame of reference" (leaving one's childhood religious tradition in search of a more structured religious environment), and "life-long quests – late revisions" (leaving a religious environment, because it does not sufficiently meet religious needs and expectations). The "pursuit of autonomy" type is of special interest here because it reflects a process of deconversion from the individual's established religious milieu. It is a search for individuation and the critical development of new perspectives which mostly leads to secular exits. Secular exiters make up 30% of the deconverts, another 30% leave organized religion for privatized or heretical forms of religiosity, and the rest remain within some kind of organized religion.

Moving beyond issues associated with religious upbringing, the relationship between children and their parents in general may be of relevance to atheism, agnosticism, and apostasy. In their psycho-historical studies of the impact of “defective fathering”, Koster (1989) and Vitz (2000) argued that, in their childhood, many famous atheists (like Darwin, Nietzsche, or Freud) suffered under the demands of their dominant and bigoted fathers who failed to express feelings of love and esteem to their sons. The sons became apathetic, unhappy, and melancholic and tried to flee from their family situation. In later life, they rebelled against the demanding beliefs of their fathers calling the complete worldview they were raised in into question. The denial of their own roots, however, caused psychopathological symptoms including depression or self-hatred, so that their fight for autonomy resulted in what Lepp (1963) called a “neurotic denial of God”.

Hood, Hill, and Spilka (2009) have criticized the theories of neurotic atheism because of their exclusive focus on males and their fathers, and the lack of broader empirical support. More solid empirical data come from research on religion and attachment (Granqvist & Kirkpatrick, 2008; see Granqvist & Kirkpatrick, Volume 1 for overview) which shows that, in religious families, closer parent-child attachments in childhood correspond with closer attachment to God and more positive images of God in adulthood. Secure parent-child attachments can thus lead to more stable religiosity, whereas distant or avoidant relationships between parent and child increase the likelihood of sudden conversions and religious switching or of secular exits (Granqvist & Hagekull, 2003; Granqvist & Kirkpatrick, 2004; Kirkpatrick, 1997; 1998).

**Motives and developmental factors.** A body of research has focused on motives and biographical factors associated with the development of atheism, agnosticism, and apostasy. This research includes studies about religious doubts (Brinkerhoff & Mackie, 1993; Hunsberger &

Altemeyer, 2006) and personal experiences of disappointment with religious professionals, communities, or with God, or anger against God (Exline, 2002; Exline & Rose, 2005).

In a comprehensive content analysis of 1226 statements which atheistic/agnostic internet users had posted on a Catholic webpage “www.ohne-gott.de” (“without God”), Murken (2008) identified five clusters of statements which articulated doubts, disappointments and frustrations with respect to religious beliefs and institutions: (1) an opposition against Christianity because of faults of the Catholic Church (e.g. the crusades or witch-hunting, clergy sexual abuse) and its rigid sexual morals regarding contraception, premarital sex, and homosexuality, (2) experiences of religious hurt and disappointment, in particular the feeling of being abandoned by God in times of burden and loss, (3) negative and critical images of God (e.g. the feeling of incapacity to meet God’s demands and of being supervised and punished by God), (4) the question of theodicy (if God is just, loving, and all-powerful, why does he allow evil and suffering to exist?), and (5) the yearning for God and for faith to find meaning and comfort. These factors may support the emergence of skepticism against religious beliefs, groups and institutions and, as a consequence, raise serious questions about religion in general.

In particular, experiences of personal suffering can throw an individual’s fundamental system of religious beliefs into question, producing religious/ spiritual struggles marked by feelings of abandonment and punishment by God as well as questions about whether God really exists and is truly loving and almighty (Exline, Volume1; Pargament et al., 1998; Pargament, Koenig & Perez, 2000). Research shows that experiences such as severe illness, the loss of a loved person, physical, emotional, and sexual abuse, and other traumata can provoke spiritual struggle which can transform former beliefs and lead to spiritual disengagement, apostasy, atheism/agnosticism, but potentially, spiritual growth, too (Pargament, 2007). Pargament and

Mahoney (Pargament, 2007; Pargament & Mahoney, 2005) argue that the experience of a desecration, the perception that things which have been perceived as sacred (e.g. my body, my integrity, my beliefs, my relationships etc.) have been violated, is particularly likely to shake the individual to the core. In a similar way, Novotni and Peterson (2001) describe “emotional atheism” as the result of a process of repression and emotional distancing from God. They view the conflict between the need to blame God in difficult situations and the recognition that God must not be blamed as a trigger for the onset of emotional distancing. Thus, “emotional atheism” emerges from the stepwise loss of an unsatisfying faith. In short, experiences of spiritual struggles (Exline & Rose, 2005; McConnell, Pargament, Ellison, & Flannelly, 2006; Pargament, 2007) represent important developmental factors that may generate atheism/agnosticism.

**Predictors of (dis-)belief in God.** Some scholars have tried to identify socio-demographic predictors of apostasy (Hadaway, 1989) and atheism/agnosticism (Sherkat, 2008). Sherkat used data from the 1988–2000 General Social Surveys to analyze the effects of socio-demographic variables on (dis-)belief in God as measured by the single GSS item “Belief in God”. Sherkat found that (dis-)belief was predicted by being younger, male, white, and more highly educated. These results are in line with findings that the elderly (cf. Hout & Fischer, 2002), women (cf. Francis, 1997), and blacks (cf. Batson, Schoenrade & Ventis, 1993) display higher levels of religiosity. The effect of age has been explained in terms of a rebellion against established authorities and beliefs during younger phases of life or in terms of generational and cohort effects (Hood, Hill & Spilka, 2009; see Krause, Volume 1; Levenson, Aldwin & D’Mello, 2005). The gender difference has been explained by the structural location of men and women in society (working vs. staying at home and care for the children, including religious instruction), by gender roles and personality factors (Francis, 1997), and, recently, as a consequence of lower

risk aversion (calling religion into question) among men (Collett & Lizardo, 2009; Miller & Hoffmann, 1995). The effects of gender and race have also been understood in terms of the comfort and self-esteem religion offers to members of socially disadvantaged groups (Maselko et al., 2007; see Mattis, Vol. 1; Taylor, Chatters, & Levin, 2004). In addition, familial factors play a role because those who have never been married and have no children are more likely to have an atheistic orientation (Sherkat, 2008). This result coincides with findings that atheists and agnostics report slightly higher levels of introversion (Bainbridge, 2005) and more feelings of loneliness (Lauder, Mummery, & Sharkey, 2006) in comparison with religious persons. Living in rural areas and in the southern states (“Bible Belt”) of the U.S. – where being nonreligious can even appear to be “deviant” (Heiner, 1992) – decreases the likelihood of being atheist. Finally, religious affiliation has predictive power, even after controlling for the effects of other socio-demographic factors. Compared to mainline Protestants or Jews, belonging to a sect or to the Catholic Church decreases the probability of atheism. Furthermore, being unaffiliated is associated with a considerable higher tendency towards atheism (Sherkat, 2008).

### **Psychological Correlates of Atheism, Agnosticism, and Apostasy**

**Education and intelligence.** The link between higher education and atheism/agnosticism is a “classic” finding within the psychology of religion (Beit-Hallahmi, 2007; Hood, Hill & Spilka, 2009): In 1916 and 1934, Leuba (an agnostic himself) found that eminent scientists (mathematicians, physicists, biologists) showed higher rates of unbelief in God and immortality (Leuba, 1916; 1934). Some 80 years after Leuba’s first study, Larson and Witham (1998) tried to replicate these findings. They surveyed members of the U.S. National Academy of Sciences and found that this generation of scientists had become even more strongly atheistic: Whereas 53% (1916) and 68% (1934) of the respondents in Leuba’s studies said that they do not believe in any

God and 25% (1916) and 53% (1936) reported no personal belief in immortality, in the study of Larson and Witham (1998) 72% reported no personal belief in God and 77% no belief in immortality. The beliefs of U.S. scientists appear to differ strongly from those of the American public.

Such findings have led some researchers to hypothesize that higher intelligence leads to an atheistic orientation. For instance, Nyborg and colleagues (Nyborg, 2009; Lynn, Harvey, & Nyborg, 2009) argue that mean IQ scores show a declining line with atheists having the highest IQ scores and dogmatic persons the lowest IQ scores and agnostics and liberals in the middle, and a similar line from more atheistic nations to more religious countries, because intelligence leads toward a worldview that best fits cognitive complexity and brain efficiency. Kanazawa (2009; 2010) postulates an evolutionary principle that more intelligent individuals are more likely to acquire and espouse novel values including atheism, liberalism, and – for men – sexual exclusivity and monogamy; Kanazawa claims to have found a number of results supporting this hypothesis. However, the theories of Nyborg and Kanazawa about intelligence and atheism neglect a number of factors. The most important is that a substantial number of well-educated, highly intelligent people are still religious. Also, it is not clear why an atheistic worldview is necessarily more cognitively complex than a theological system. Further, Kanazawa's (2009; 2010) evolutionary argument that more intelligent persons tend towards atheism, liberalism, and sexual exclusivity is plausible only if it is assumed that evolution leads inevitably towards atheism. Finally, most of the findings to which Nyborg, Kanazawa and their colleagues refer are based upon measures of school achievement and education rather than intelligence. Although education, school achievement, and intelligence are highly correlated, they are not identical. As an alternative to evolutionary explanations, the tendency of higher education and better school



achievement to be associated with atheism could be understood in terms of a particular “social inheritance” within better educated families and institutions of higher education which transmit a scientific worldview challenging religious beliefs. The findings could then be interpreted as an indication that it is difficult and challenging to integrate a religious worldview and scientific education.

**Personality factors and values.** Some reviews and meta-analyses (Piedmont, 2005; Saroglou 2002, 2010; Saroglou, Delpierre, & Dernelle, 2004) are relevant to the personality and value characteristics of less religious and non-denominational people. However, these studies have not focused on atheists or agnostics explicitly. It would be inappropriate to conclude that atheists and agnostics are less conscientious and less agreeable (Saroglou, 2010) because high scores on several religiosity measures are significantly correlated with conscientiousness and agreeableness. What is needed are studies which compare the personalities of atheists, agnostics, and apostates to those of religious people.

In the Bielefeld-Based Cross-Cultural Study of Deconversion (Streib et al., 2009), the NEO-FFI personality measure (Costa & McCrae, 1985), the Ryff Scale on Psychological Well-Being and Growth (Ryff & Singer, 1996), the Religious Fundamentalism Scale (Altemeyer & Hunsberger, 1992) and the Right-Wing Authoritarianism Scale (Altemeyer, 1981) were included for both members of religious communities and for deconverts in the U.S. and in Germany. Across both cultures, deconverts score significantly higher on *openness to experience* and, interestingly, somewhat higher on *neuroticism*. Compared to members of religious communities, deconverts also manifest considerably lower scores on religious fundamentalism and right-wing authoritarianism (RWA). Finally, deconverts report a significantly higher sense of personal growth and autonomy (Ryff scale) than members of religious traditions.

In their comprehensive study of U.S. and Canadian atheists, Hunsberger and Altemeyer (2006) found similar results. Atheists indicated less prejudice against ethnic minorities and homosexuals than did highly religious people. In general, compared to the highly religious group, atheists were found to be less dogmatic and zealous in their worldviews, with little need to proselytize, although they regarded religious fundamentalists as enemies. Hunsberger and Altemeyer attribute the lower dogmatism and zealotry of atheists to their lower scores on RWA. Comparing atheists and agnostics, Hunsberger and Altemeyer found agnostics to be even less dogmatic and zealous than atheists, although they had slightly higher levels of prejudice and RWA. Maybe this result is due to the more cohesive and resolved worldview of the atheists.

Similarly, according to the findings of Baker and Smith (2009), atheists are more strongly opposed to religious teachings and the public presence of the church than are agnostics. Unchurched believers were found to be as opposed to religion in the public sphere as atheists, but displayed higher levels of spirituality and personal religiosity than atheists or agnostics. Findings from both the U.S. and the U.K. illustrate that atheists, agnostics and unchurched believers hold patterns of individualistic values and very liberal political stances concerning abortion, divorce, drug use, euthanasia, stem cell research, or gay marriage (Baker & Smith, 2009; Farias & Lalljee, 2008).

Research on values in Belgium using the Post-Critical Belief Scale (PCBS) gives further insight into the dynamics of atheism/agnosticism and value orientations. The scale distinguishes between an exclusion and an inclusion of transcendence in combination with a distinction between a literal and a symbolic understanding of these different beliefs (Fontaine et al., 2003; see also Wulff, 1997). Hence, the PCBS assesses two alternative atheistic orientations, the literal *external critique* (denial of transcendence because the stories told in sacred scriptures cannot be

literally true) and the symbolic *relativism* (denial of transcendence while accepting an existential truth of sacred scriptures as an expression of human wisdom). While nonreligious orientations in general were found to correlate with self-enhancing values such as hedonism or stimulation, *external critique* was associated with conservative values such as security and power and *relativism* showed significant associations with universalism and benevolence (Fontaine et al., 2005) – values which indicate an openness to change (Schwartz, 1992; 1994). Other findings with the PCBS elaborate on these results: *External critique* is positively correlated with more cultural conservatism (Duriez, 2003), more racism (even after controlling for RWA; Duriez, 2004), and lower agreement with moral attitudes (Duriez & Soenens, 2006). Interestingly then, it appears to be the case that the correlates of a literal understanding of atheism resemble those of literal religious beliefs. Research with the PCBS makes the crucial point that, in order to understand value orientations, we must consider not only whether someone is religious or atheist, but also the way in which religious or atheistic contents are processed.

Although there seem to be at least some characteristic patterns of atheists' and agnostics' personality and value orientations, we conclude that the existing data do not allow causal interpretations: Whether an agnostic/atheistic position is the result of more openness and more tolerant and self-enhancing values or whether an agnostic/atheist worldview leads to such values, is answerable only through future longitudinal studies.

### **Atheism, Agnosticism, and Apostasy, and Their Relation to Health and Well-Being**

A large body of research has demonstrated relationships between religion, coping, health and well-being. On the psychological level, many findings illustrate associations between higher religiosity and less depression (see Dein, Volume 1; Smith, McCullough, & Poll, 2003), less addiction (Geppert, Bogenschütz, & Miller, 2007; see Johnson, Volume 2), higher life

satisfaction and well-being (Hackney & Sanders, 2003), and differential effects of religious coping (Ano & Vasconcells, 2005; see Gall, Volume 1; Pargament, 1997). Higher religiosity has also been related to better physical health, perhaps as a result of lifestyle factors and psychoneuroimmunological processes (Chida, Steptoe, & Powell, 2009; see Koenig, Volume 2; Koenig, McCullough, & Larson, 2001; see Maselko, Vol. 1). It could thus be tempting to reason that the converse would be true; that is, atheism/agnosticism would be associated with poorer health.

However, low scores on religious measures should not be equated with atheism, agnosticism, or apostasy. Indices of organizational and individual religiosity (e.g., church attendance, prayer, intrinsic and extrinsic orientation, religious affiliation) are poor indicators of atheism or agnosticism. According to Hall, Koenig, and Meador (2008), these measures of religiousness can be understood as reverse-scored indices of “secularism”. However, doubts persist whether the concept of secularism fully captures the characteristics of atheism, agnosticism, and apostasy as described in this chapter. Thus, although there is strong evidence for an overall positive correlation between religiosity and mental and physical health, this does not automatically imply that lower religiosity/secularism is identical with high atheism or apostasy. Neither does it indicate that atheism, agnosticism, and apostasy are associated with poorer health, coping and well-being. It would therefore be helpful and challenging to study mental health and well-being of atheists and agnostics in their own right with comprehensive measures of these dynamic processes (Hwang, Hammer, & Cragun, 2009; Whitley, 2010).

Comparative research on atheists, agnostics, apostates, and religious people might help clarify those studies which do not support the assumption that religiosity is generally associated with better health and well-being. In this vein, Baker and Cruickshank (2010) compared the

depressive symptoms of atheists, agnostics, and religious groups and found that their health scores did not differ. Similarly, O'Connell and Skevington (2009) found no differences between atheists, agnostics, and religious persons with respect to their quality of life except between their scores on spiritual well-being. Also, although apostasy is often accompanied by emotional suffering, the process of becoming an apostate does not necessarily end in a "neurotic denial of God." Recall too that deconverts in the U.S. reported higher scores on the *autonomy* and *personal growth* subscales than the members in religious organizations (Streib et al., 2009). Taken together, firm conclusions about the relationships between health and atheism, agnosticism, or apostasy cannot yet be drawn (Stefanek, McDonald, & Hess, 2005).

Some studies in which atheists and agnostics have been explicitly identified have detected a U-shaped relationship in which the most and least religious groups report fewer symptoms of mental illness or better well-being scores than the moderately religious group (Donahue, 1985; Riley, Best, & Charlton, 2005; Shaver, Lenauer, & Sadd, 1980). These findings are in line with the classical assumption of William James (1902) that the certitude of an individual's beliefs might be of more importance for his or her well-being than specific belief contents. It seems that these curvilinear effects are easier to find in more secular contexts than the U.S., such as the U.K. (Baker & Cruickshank, 2010; Riley, Best, & Charlton, 2005) or Germany (Klein, 2010; Zwingmann et al., 2006) where religious and existential beliefs have become increasingly personalized, detached, and heterogeneous (Jagodzinski & Dobbelaere, 1995). Conversely, clear associations between religion and mental health seem to be more difficult to detect in these more secularized contexts. Additionally, research in more secular European contexts shows that scales for the study of religious coping from the U.S. demonstrate effects primarily within specific, highly religious subsamples (Pieper, 2004); but other forms of existential or spiritual coping are

more common and perhaps more predictive of health-related outcomes in European populations, including the Netherlands (Uden, Pieper, & Alma, 2004) and Sweden (Ahmadi, 2006).

To make sense of this complex pattern of findings it may be helpful to recognize that each study of the religion-health nexus offers insights only into one particular socio-cultural context. The results of each study might therefore best be understood as one part of a U-curve describing the complete relation between (non-)religious orientation and mental health. Given the differences in religiosity levels between the U.S. and the more secular parts of Europe – for instance, while 62% of the U.S. population can be rated as *highly religious*, only 19% of the U.K. population or 18% of the German population can be labelled as *highly religious* (Bertelsmann Foundation, 2009; Huber & Klein, 2007) – U.S. samples are likely to include more religious persons and less likely to include those who are agnostics or atheists. Such samples, however, capture the middle to the right part of the U-curve, and findings from these studies would typically reveal a positive linear relationship between religion and health or well-being (see Figure 1).

---- insert Figure 1 about here -----

Samples from more secular contexts, however, are more likely to cover the middle and the left part of the U-curve, including not only some religious persons, but also a substantial number of doubting, agnostic, and atheistic persons. Hence, such samples might yield contradictory findings, including negative relationships between religion and health and well-being. The curvilinear character of relationships between religion and health may emerge only if the full range of beliefs and non-beliefs is represented in the research. Of course, this explanation is only hypothetical, but it highlights the need for cross-cultural studies of the religion-health-

nexus in ways that might reveal the interactions among the sample, the larger cultural context, and the local salience of diverse beliefs.

Although the relations between atheistic and agnostic orientations and well-being have not been studied in detail yet, a growing number of reports from physicians, therapists and nurses both from the U.S. (Josephson & Peteet, 2007; Moadel et al., 1999; Peteet, 2001) and Europe (O'Connell & Skevington, 2005) indicate that nonreligious patients in hospitals and psychotherapy express as much need as religious people to talk about existential issues, such as the meaning of life. However, we would caution against interpreting this interest in existential issues per se as a “spiritual” interest (as some authors do): Such an inflationary usage might be terminologically misleading, because it camouflages existing differences between exclusively immanent existential issues and “spiritual” interests – there are patients with completely secular, neither religious, nor spiritual interests, too (Pargament, 1999; Koenig, 2008). It should nevertheless be clear that atheists, agnostics, and apostates deserve attention as substantial groups in their own right and should be treated with respect and appreciation for their distinctive beliefs (D'Andrea & Sprenger, 2007; Saeed & Grant, 2004).

### **Outlook on Future Research**

We conclude with four suggestions for future research. First, with some exceptions, only a few studies have compared atheists, agnostics, and apostates with religious people in terms of classical psychological constructs such as personality factors, coping, well-being and health. Thus, we need not only studies which focus specifically on atheists and agnostics, but also studies of classical psychological constructs among actively committed atheists using measures which delve more deeply and comprehensively into atheists' and agnostics' worldviews. Second,

longitudinal studies of atheism, agnosticism and apostasy are also needed to shed light on the dynamic, evolving character of these processes. Third, cross-cultural comparisons of religious, atheistic, and agnostic milieus in the U. S. and other cultures on the globe are needed to clarify the religion-health nexus. Tests of the hypothesis of a cross-culturally U-shaped relation between (non) religiousness and health might be particularly illuminating. Finally, it is important to pay special attention to the “spiritual” self-identification of some atheists, agnostics and apostates: Echoing Hood et al.’s (2009) recommendation, we encourage closer investigations of the reasons why a considerable portion of atheists and agnostics self-identify as “spiritual, but not religious.” Perhaps this group understands “spirituality” as a process of searching for and finding meaning – and perhaps a sense of the sacred – in domains that are not traditionally “religious”, such as the ecological movement and the concern for the preservation of mother earth.



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Figure 1: Hypothetical U-shaped Relation between Religiosity, Mental Health and Well-Being, and Sampling Effects due to Cultural Context

